

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, JULY, 1928

By J. B. KINCER

General summary.—During the first decade of July there was a change from the cool, cloudy, and wet weather, which had characterized conditions for more than a month in Central and Northern States, to warm, sunny conditions, which were very favorable for the growth of crops and farm work. Warm-weather vegetation especially made rapid advance, as the soil moisture was abundant in most sections. Some complaints of poor cultivation, due to the previous wet weather, continued, however, although farm work made good progress in most of the South. The weather in the Great Plains was especially favorable, and showers in the Pacific Northwest were helpful, but much of the Southwest remained dry, and only irrigated crops did well.

Mostly favorable conditions continued during the second decade, with moderate temperatures prevailing, and rather well-distributed showers over the greater portion of the country. Harvesting and threshing were interrupted to some extent in the Great Plains area, but the warmer weather and much sunshine in the interior valleys were especially favorable for corn. Rain was still needed in the Southwest, but over most of the country there was an unusually generous supply of soil moisture, although in the far Northwest dry-land farms needed rain.

Weather conditions remained generally favorable for agricultural interests during the last decade in most parts east of the Rocky Mountains. A general, moderate, warm rain would have been helpful over considerable sections of the interior, but, as a general rule, soil moisture was more than usually favorable in the principal agricultural sections, with no extensive area suffering from drought. In the Southwest further showers were welcome, with the drought broken in Texas, except for parts of the coastal localities and the southwest. In the Atlantic coast districts the weather was favorable for crop growth, and in the Great Plains harvest made generally good advance, except for some local delay by showers. West of the Rockies conditions were favorable for irrigated crops, but it was too hot and dry for unirrigated vegetation.

Small grains.—During the first decade timely dry, sunshiny weather favored the harvest of winter wheat, and this work made good progress, except for some interruption by rains in Kansas. Cutting had begun north to the southern portions of Pennsylvania and Ohio and to the northern portions of the belt in the Great Plains. In eastern Kansas the bulk of wheat had been cut, while farther south conditions were favorable for harvest and threshing.

During the second decade the harvest of winter wheat was interrupted to a considerable extent by rains in the Atlantic area, but cutting made rather favorable advance in general. During the last part of the month rain interrupted the harvesting of this crop in some late sections of the western belt, but wheat harvest had been mostly completed and threshing was well along.

Spring wheat made good development during the first decade, under favorable weather conditions, and was mostly headed in the heavy producing sections; the crop showed general improvement and appeared to be in fair to very good condition. It continued to make fair to very good progress during the second decade, with indications of heads filling well, though there was some premature ripening locally, due to dryness. The weather during the last decade continued mainly favorable for

ripening the grain and for harvest in the spring-wheat area with cutting begun in North Dakota, but the unusually warm weather in the Pacific Northwest caused considerable damage to immature grain.

Corn.—During the first decade the weather was generally favorable for corn, with progress mostly excellent in the main producing sections. In the Ohio Valley warmth and ample soil moisture promoted rapid growth and in Iowa development and condition were generally excellent, with the crop averaging waist-high. In the Great Plains corn made good to excellent advance and was tasseling north to northern Kansas. In the South progress varied from fair to excellent, and in the East the weather was generally favorable, while from the Great Lakes westward much improvement was noted. The weather continued mostly favorable during the second decade and progress was mostly good to excellent. There was still some complaint of lack of cultivation in the eastern half of the belt and in some southern sections of the Great Plains. In Iowa the crop was beginning to tassel, with a little shooting and silking, and in the Great Plains advance was excellent, with some tasseling north to South Dakota.

During the last decade corn made very good to excellent progress in practically all of the main producing sections and was silking and tasseling in the Ohio Valley, with some ears showing. Progress and condition were very good in Iowa, with the crop mostly tasseled and half silked; stalks were largely in silk in Missouri and a few roasting ears were showing. Fair to excellent advance was reported in the Great Plains, with the crop generally tasseled and much of it silking, but progress varied widely in the South; good advance was indicated in the East and from the Great Lakes westward.

Cotton.—During the first decade cotton made very good growth in the Carolinas, with squares and bloom becoming increasingly abundant in South Carolina, but in Georgia cultivation was badly needed, with the plants making sappy growth and some poor stands reported. In the central part of the belt progress ranged from mostly fair to very good and the crop was generally late, while in Arkansas and Louisiana progress was very good. In Oklahoma very good advance was reported, with early plants setting squares and blooming; but in Texas only fair to good progress was made, although picking and ginning made good advance in the extreme south.

During the second decade cotton made mostly good growth in the Carolinas and Georgia, but plants were sappy, due to frequent rains, and in Georgia there were complaints of ceasing to fruit well and some shedding. In the central part of the belt progress varied from poor to locally good, but with complaints of lateness, lack of cultivation, and some abandoned fields on northern lowlands.

In Arkansas progress was poor to only fair in some wet portions, but mostly very good elsewhere, while in Louisiana growth was good; in Oklahoma it was rather too cool and wet, but early plants were fruiting nicely. In Texas progress and condition were fair to good, except poor in some dry sections; picking and ginning made good advance in the south.

During the last decade growth of plants was very good in the Carolinas, although the crop continued late, as a rule, and in Georgia cotton showed further improvement, with bolls forming well and less shedding. In the central part of the belt progress was fair to very good, while in Arkansas cotton made very good advance, except in some areas where it was still too wet. In Louisiana growth of plants was good, but there were

some reports of shedding rather badly. In Oklahoma progress and condition were fair to good, but warm, dry weather was needed in some parts where shedding was reported. In Texas the drought was broken, except in parts of the southwest and lower coast sections, where the crop made poor advance; elsewhere conditions were generally favorable and progress was fair to very good.

Miscellaneous crops.—Pastures made mostly satisfactory advance east of the Mississippi River during the month, and in the Great Plains area good to excellent condition was noted. Ranges in the Rocky Mountain area did well, except that in the more southern part and also in the Southwest there was need of moisture, and ranges were generally dry west of the mountains. Except

for some local interruption, haying made good advance. Livestock continued to do well.

Potatoes did well generally, except that, at the close, they were reported blighting badly on Long Island, and some slight blight was indicated in the eastern Ohio Valley. Truck crops did well rather generally. Sugar cane made excellent advance in Louisiana and sugar beets did well, although at the close of the month they needed rain in Utah. Tobacco curing progressed well in the Southeast, and good advance was made elsewhere. Citrus grew well during the month, and deciduous fruits made normal growth, but there were complaints that peaches were rotting and dropping in parts of the Southeast toward the end of the month.

WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

Judging from reports received up to time of writing, July was one of the quietest months on record over the North Atlantic, as only 10 vessels have forwarded storm reports, with a maximum wind force of 9. There was only one well-developed disturbance of any intensity during the month, and this originated in the first decade, and will be described later. Under these conditions it was not considered advisable to publish the usual charts.

As is often the case during a month of moderate weather, fog was unusually prevalent. Over the steamer lanes, west of the twentieth meridian, fog was reported on from 14 to 27 days, the latter number occurring in the 5° square between the fortieth and forty-fifth parallels and sixty-fifth to seventieth meridians.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, 8 a. m. (seventy-fifth meridian), North Atlantic Ocean, July, 1928

| Stations | Average pressure | Departure ¹ | High-est | Date | Low-est | Date |
|--------------------------------|------------------|------------------------|---------------|-------------------------|---------------|-------|
| | <i>Inches</i> | <i>Inch</i> | <i>Inches</i> | | <i>Inches</i> | |
| Julianehaab, Greenland..... | 29.80 | (?) | 30.24 | 29th..... | 29.36 | 6th. |
| Belle Isle, Newfoundland..... | 29.83 | -0.04 | 30.22 | 13th..... | 29.46 | 20th. |
| Halifax, Nova Scotia..... | 29.96 | +0.04 | 30.24 | 14th..... | 29.70 | 29th. |
| Nantucket..... | 29.97 | -0.01 | 30.24 | 31st..... | 29.72 | 23d. |
| Hatteras..... | 30.03 | +0.01 | 30.24 | 31st..... | 29.86 | 6th. |
| Key West..... | 30.04 | +0.03 | 30.12 | 25th..... | 29.98 | 19th. |
| New Orleans..... | 30.04 | +0.04 | 30.14 | 29th ² | 29.96 | 11th. |
| Cape Gracias, Honduras..... | 29.90 | 0.00 | 29.94 | 5th ³ | 29.80 | 18th. |
| Turks Island..... | 30.09 | +0.08 | 30.18 | 24th..... | 29.90 | 1st. |
| Bermuda..... | 30.22 | +0.11 | 30.36 | 12th ⁴ | 30.04 | 23d. |
| Horta, Azores..... | 30.24 | -0.03 | 30.46 | 8th ⁵ | 29.96 | 30th. |
| Lerwick, Shetland Islands..... | 29.78 | -0.02 | 30.19 | 16th..... | 29.44 | 29th. |
| Valencia, Ireland..... | 30.12 | +0.14 | 30.49 | 16th..... | 29.76 | 27th. |
| London..... | 30.10 | +0.12 | 30.44 | 17th..... | 29.67 | 28th. |

¹ From normals shown on Hydrographic Office Pilot Chart based on observations at Greenwich mean noon, or 7 a. m., seventy-fifth meridian.

² No normal available.

³ And on other dates.

On the 1st and 2d an area of low pressure was off the north coast of Scotland, and on the latter date land stations in the British Isles reported southwest winds of force 7, although all reports that have been received from vessels in the vicinity give moderate winds.

On the 5th and 6th there was a second low in nearly the same location, and on the 5th low pressure also occurred over the Straits of Belle Isle; both lows were accompanied by moderate weather.

From the 7th to 11th the only disturbance of any extent during the month covered the eastern section of the steamer lanes; this reached its greatest force on the 10th when moderate south to southwesterly gales prevailed over the area between the forty-fifth and fifty-fifth parallels and the fifteenth to thirtieth meridians.

From the 12th to the 30th, while there were depressions over different sections of the ocean, moderate weather was the rule, and during this period winds of over force 6 were rare.

On the 31st the American S. S. *McKeesport* encountered a northeasterly gale, as shown by report in table. The storm area was evidently very limited, as other vessels near by reported moderate winds.

Note.—Am. S. S. *Pennsylvanian*, Capt. A. C. Keene; observer, J. M. Mikkelsen, Charleston to New York. July 8, 8 a. m., seventy-fifth meridian time, in 33° 50' N., 74° 56' W. Sea smooth, weather cloudy, St.-Cu. 6, barometer 30.09 inches, air 80°, wet bulb 78°, water 76°, visibility fair. Observed a large waterspout drawing water, about 6 to 7 miles to eastward, that lasted about 15 minutes. The upper part was a short and broad solid column with a narrow white streak in the center. In the middle it was broken and the lower part was more hazy and appeared as if water were splashing out to each side. A heavy rain squall followed about half an hour later. Rest of day was fine and clear.